

The Blueberry Bulletin

A Weekly Update to Growers

June 23, 2021

Vol. 37, No. 14

- * Visit the Blueberry Bulletin webpage at www.njaes.rutgers.edu/blueberry-bulletin
- * The 2021 Commercial Blueberry Pest Control Recommendations for New Jersey is available on njaes.rutgers.edu

As we anticipate the arrival of our seasonal blueberry workers we want to share the most up-to-date information with you. The New Jersey Department of Health anticipates that about 50% of the incoming workers will not be vaccinated prior to their arrival in New Jersey. Workers who are in need of a COVID vaccine may have questions about the safety of the J&J vaccine, the most common vaccine available to farm workers in NJ. The CDC has released updated information [What do I need to know about Johnson & Johnson's Janssen COVID-19 Vaccine \(J&J/Janssen\) now? \(cdc.gov\)](https://www.cdc.gov/media/releases/2021/s0618-covid-19-vaccine-janssen.html)

If you would like to determine if on-farm vaccinations are possible for your farm please email njfarmvax@njaes.rutgers.edu and a member of the Rutgers farmworker vaccination education program will connect you with your local Federally Qualified Health Center representative. For information on our states mega centers visit [COVID-19 Vaccine \(nj.gov\)](https://www.nj.gov/health/covid-19/vaccine/)

Updated information on COVID-19 and the vaccine can be found online at [Vaccine Information Resources for Farmers - Rutgers On-Farm Food Safety](https://njaes.rutgers.edu/vaccine-information/)

IPM

Mr. Dean Polk, IPM Agent – Fruit

Blueberries:

Aphids: Aphids are still being found. Colonies are in the middle range to slightly less compared to last week, the average shoot infestation rate is 7.72% of new shoots infested with a high of 68%. If aphid populations are present, they still must be controlled, but while working around PHIs and SWD control.

Spotted Wing Drosophila (SWD): Populations are increasing, and as measured by red sticky card counts, they are about double the numbers we saw the previous week. Any field that is colored or starting to color should have protection. Most materials that control SWD also control blueberry maggot (except Delegate and Entrust, which provide suppression). With regards to monitoring for the larval stage, salt tests on mature fruit show no infested fruit as of this week.

Blueberry Maggot (BBM): No blueberry maggot adults have been found yet. Historically we have usually found the first adult maggot fly by June 10-15. The late and possibly smaller population is probably due to the presence of SWD sprays.

Oriental Beetle (OB): Adults continue their emergence as they start to mate and lay eggs. Freshly hatched larvae should be present over the next several weeks. OB treatments should go on by mid-July, or prior to the grubs molting into their 3rd instar stage.

Anthracnose: Some anthracnose is being seen, and ranges from .05% infected fruit to 1.4% infected fruit. Therefore, fungicides applications are still merited. Abound, Pristine, Switch and Phosphite materials have a "0" day PHI. Not all materials can be aerially applied. See the 2021 Blueberry Pest Control Recommendations for additional products.

By the Numbers Summary:

% Leafroller/Surface Lep. Injury and Plum Curculio Injured Fruit				
Week Ending	% Leps injury to Berries		% PC injury to Berries	
	Avg	Max	Avg	Max
5/14	0.13	2	0.68	7.8
5/21	0.13	1.8	0.80	9.8
5/28	0.013	0.5	0.13	3.7
6/4	0.002	0.2	0.008	0.3
6/11	0.002	0.3	0.005	0.4
6/18	0.001	0.2	0	0

% Cranberry Fruitworm, Cherry Fruitworm and Scale Injured Fruit						
Week Ending	% CFW injury to Berries		% CFW injury to Berries		% Scale Injury	
	Avg	Max	Avg	Max	Avg	Max
6/4	0.009	0.1	0.005	0.1		
6/11	0.014	0.6	0.001	0.1	0.012	0.9
6/18	0.001	0.1	0.015	0.7	0.018	0.4

Spotted Wing Drosophila Males per Red Sticky Card				
Week Ending	SWD(AC)		SWD(BC)	
	Avg	Max	Avg	Max
6/4	1.5	8	0.375	3
6/11	1.84	9	1.77	1
6/18	3.4	25	2.86	6

Oriental Beetle Trap Counts				
Week Ending	OB(AC)		OB(BC)	
	Avg	Max	Avg	Max

6/4	3.9	32	0.25	1
6/11	185.72	2025	15.8	60
6/18	292	1350	285	2025

Blueberry Maggot Adult Captures				
Week Ending	BBM(AC)		BBM(BC)	
	Avg	Max	Avg	Max
6/4	0	0	0	0
6/11	0	0	0	0
6/18	0	0	0	0

% Diseased Fruit						
Week Ending	% Mummy Berries		% Anthracnose Berries		% Alternaria Berries	
	Avg	Max	Avg	Max	Avg	Max
6/18	0.002	0.2	0.05	1.4	0.06	1

INSECTS

Dr. Cesar Rodriguez-Saona, Extension Specialist in Blueberry Entomology, Rutgers University

Mr. Dean Polk, IPM Agent – Fruit

Ms. Carrie Mansue Denson, IPM Program Associate – Fruit

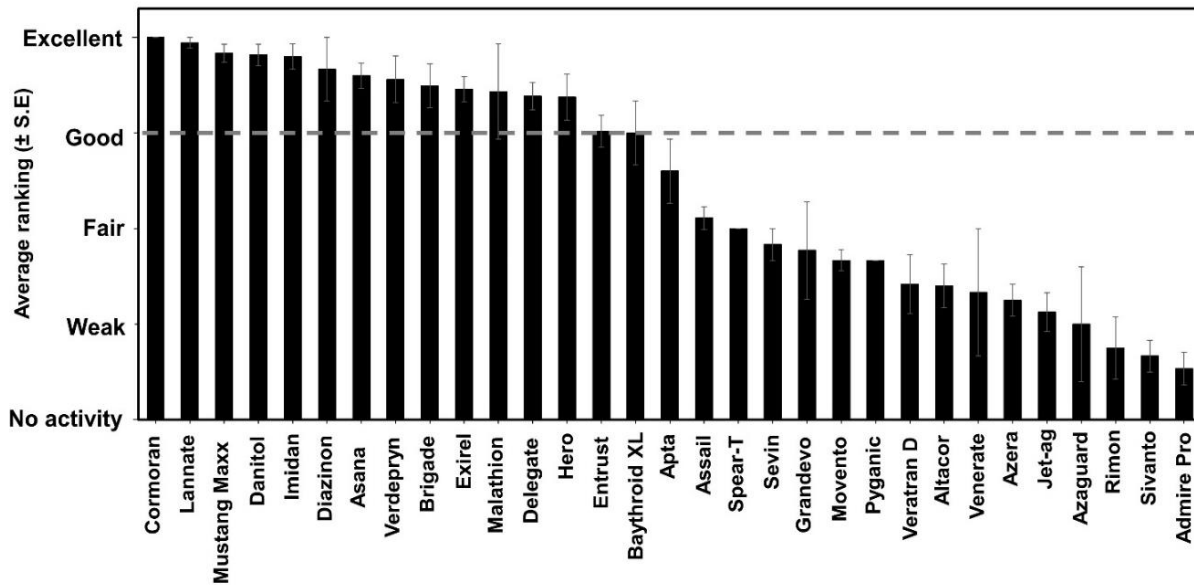
Aphids: Aphids are still being found. Colonies are in the middle range to slightly less compared to last week, the average shoot infestation rate is 7.72% of new shoots infested with a high of 68%. If aphid populations are present, they still must be controlled, but while working around PHIs and SWD control.

Spotted-Wing Drosophila (SWD) (Figure 1): Populations are increasing, and as measured by red sticky card counts, they are about double the numbers we saw the previous week. Any field that is colored or starting to color should have protection. Most materials that control SWD also control blueberry maggot (except Delegate and Entrust, which provide suppression). With regards to monitoring for the larval stage, salt tests on mature fruit show no infested fruit as of this week.



Figure 1. SWD adult male.

Figure 2 shows a ranking of insecticides based on their efficacy against SWD. Very effective materials include: a) any pyrethroid (Group 3A) – Brigade/Bifenture, Asana, Danitol, Hero, Mustang/Mustang Maxx; b) the organophosphates (Group 1B) – Imidan, Malathion, and Diazinon; c) the carbamate (Group 1A) – Lannate; d) the spinosyns (Group 5) – Delegate and Entrust; and e) the diamides (Group 28) – Exirel and Verdepryn. As a general rule, the neonicotinoids and other materials (except possibly for Cormoran) meant for sucking insects like aphids, do not work well against SWD. As indicated above, the spinosyns do have good



blueberry maggot control.

Blueberry Maggot (BBM): No blueberry maggot adults have been found yet. Historically we have usually found the first adult maggot fly by June 10-15. The late and possibly smaller population is probably due to the presence of SWD sprays.

Oriental Beetle (OB): Adults continue their emergence as they start to mate and lay eggs. Freshly hatched larvae should be present over the next several weeks. OB treatments should go on by mid-July, or prior to the grubs molting into their 3rd instar stage.

Anthraxnose: Some anthracnose is being seen, and ranges from 0.05% infected fruit to 1.4% infected fruit. Therefore, fungicides applications are still merited. Abound, Pristine, Switch and Phosphite materials have a “0” day PHI. Not all materials can be aerially applied. See the 2021 Blueberry Pest Control Recommendations for additional products.

By the Numbers Summary:

% Leafroller/Surface Lep. Injury and Plum Curculio Injured Fruit				
Week Ending	% Leps injury to Berries		% PC injury to Berries	
	Avg	Max	Avg	Max

5/14	0.13	2	0.68	7.8
5/21	0.13	1.8	0.80	9.8
5/28	0.013	0.5	0.13	3.7
6/4	0.002	0.2	0.008	0.3
6/11	0.002	0.3	0.005	0.4
6/18	0.001	0.2	0	0

Key: Leps = Lepidoptera larvae, PC = plum curculio, CBFW = cranberry fruitworm, CFW = cherry fruitworm, SWD = spotted-wing drosophila, OB = oriental beetle, BBM = blueberry maggot.

% Cranberry Fruitworm, Cherry Fruitworm and Scale Injured Fruit						
Week Ending	% CFW injury to Berries		% CFW injury to Berries		% Scale Injury	
	Avg	Max	Avg	Max	Avg	Max
6/4	0.009	0.1	0.005	0.1		
6/11	0.014	0.6	0.001	0.1	0.012	0.9
6/18	0.001	0.1	0.015	0.7	0.018	0.4

Spotted Wing Drosophila Males per Red Sticky Card				
Week Ending	SWD(AC)		SWD(BC)	
	Avg	Max	Avg	Max
6/4	1.5	8	0.375	3
6/11	1.84	9	1.77	1
6/18	3.4	25	2.86	6

Oriental Beetle Trap Counts				
Week Ending	OB(AC)		OB(BC)	
	Avg	Max	Avg	Max
6/4	3.9	32	0.25	1
6/11	185.72	2025	15.8	60
6/18	292	1350	285	2025

Blueberry Maggot Adult Captures				
Week Ending	BBM(AC)		BBM(BC)	
	Avg	Max	Avg	Max
6/4	0	0	0	0
6/11	0	0	0	0
6/18	0	0	0	0

% Diseased Fruit						
Week Ending	% Mummy Berries		% Anthracnose Berries		% Alternaria Berries	
	Avg	Max	Avg	Max	Avg	Max
6/18	0.002	0.2	0.05	1.4	0.06	1